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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/649,444 | 08/26/2003 | Robert J. Higgins | CM06299J | 5765 |

7590 12/17/2004

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| EXAMINER |
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NGUYEN, PHUONGCHI T

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| ART UNIT | PAPER NUMBER |
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2833

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/649,444

Applicant(s)

HIGGINS, ROBERT J.

Examiner

Phuongchi Nguyen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-9, 11 and 13-15 is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Applicant's amendment of September 13, 2004 is acknowledged. It is noted that claims 1-3, 7 and 13 are amended. Claims 10 and 12 are canceled.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1, 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsushita (U54849944).

In regarding to claim 1, Matsushita discloses (figure 3) a connector, comprising a plurality of contacts (10, 11, 13, 12) including

a supply contact (one of 13) (column 4, lines 7-10),

a ground contact (10) and

at least one other contact (11, 12),

and the at least one other contact (11, 12) used to provide attach/detach detection for the connector (column 4, lines 53-56), the supply (one of 13) and ground contacts (10) being longer than the at least one other contact (11, 12), so as to be first to contact (10 and 13) to (5 and 6, respectively) and last to disconnect from a mating connector (1).

It has been held that the functional "thereby" statement does not define any structure and accordingly cannot serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957).

Therefore, "thereby preventing sparking during detachment of the connector from the mating connector" is not positively recited in the claim.

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In regarding to claim 3, Matsushita discloses (figure 3) the connector interfaced system, comprising a first connector (1) having power contacts (one of 20) (since one of 20 connect to one of 13 and column 4, lines 53-56), a second connector (8) for attaching and detaching to the first connector (1), the second connector (8) having corresponding power contacts (one of 13) for mating with the power contacts (one of 20) of the first connector (1), the second connector (8) having another contact (11, 12) for indicating attachment and detachment to the first connector (1) (column 4, lines 53-56); the indication of detachment from the another contact (11, 12) causing power to turn off at the power contacts (eventually) (because the power source connect to the switch circuit 15 and the switch 15 connect to the terminal 11, column 3, lines 66-68 and column 4, lines 8-10). It has been held that the functional "thereby" statement does not define any structure and accordingly cannot serve to distinguish. In re Mason, 114 USPQ 127, 44 CCPA 937 (1957). Therefore, "thereby preventing sparking" is not positively recited in the claim.

In regarding to claim 6, Matsushita discloses (figure 3) the connector interface system wherein the first connector (1) is coupled to logic circuitry (2) that detects (when terminal 7 connects to terminals 11 and 12) the presence of the second connector (8) (Column 5, lines 5-8 and 34-37).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushita (1754849944).

In regarding to claim 2, Matsushita discloses (figure 3) the connector, comprising a supply contact (one of 13) having a first predetermined length (of 13); and a ground contact (10); and at least one other contact (11, 12) having a second predetermined length (of 11, 12), the second predetermined length (of 11, 12) being shorter than the first predetermined length (of 13) and the at least one other contact (11, 12) used to provide attach/detach detection for the connector (column 4, lines 53-56). Matsushita lacks the supply contact and the ground contact having the same length. It would have been obvious to one ordinary skill at the time the invention was made to provide the length of supply contact and ground contact of Matsushita to be the same for ease insert the connector into the mating connector.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushita (1754849944) in view of Faull (17566777281).

In regarding to claim 4, Matsushita discloses (figure 3) a connector interface system (8, 1) comprising the first connector contacts (5, 7, 20) and the second connector contacts (10, 11, 13, 12) of various lengths (figure 3). Matsushita lacks the first connector contacts to be planar contacts corresponding to the second connector contacts to be telescoping spring loaded contacts. However, Faull teaches (figures 3 and 5) the first connector contacts (45) to be planar contacts (contact pads) and the second connector contacts (pogo spring) to be telescoping spring-loaded contacts. It would have been obvious to one having ordinary skill at the time the invention was made to modify the first and second contacts of the first and second connector of Matsushita to

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be a planar contacts and telescoping spring contacts as taught by Faull for having a quick engaging and disengaging between the first and second connectors.

7. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushita (1754849944) in view of Sadler (US6058319).

In regarding to claim 5, Matsushita discloses (figure 3) a connector interface system (1, 8), comprising the first connector contacts (5, 7, 20) and the second connector contacts (10, 11, 12, 13) of various lengths. Matsushita lacks the first connector contacts to be the recessed. However, Sadler teaches the first connector contacts (124) are recessed and the second connector corresponding contacts (122) are pins (figure 7). It would have been obvious to one having ordinary skill at the time the invention was made to modify the first contacts of the first connector of Matsushita to be recessed as taught by Sadler for having a different type of contact terminals.

Allowable Subject Matter

8. Claims 7-9, 11, 13-15 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter:

In regarding to claims 7 and 13, the prior art fail to teach or suggest an interface assembly for a communication device having a supply pin, a detect pin and a ground pin, wherein the disconnection of the detect pin/other contact causing power to turn off at the supply pin/power contacts prior to disconnection of the supply pin/power contacts thereby to preventing sparking.

10. The prior art made of record and not relied upon is considered pertinent to applicants

disclosure. Fry et al (US5176528) and Peterson (US4681549) are cited to show the electrical arcing or preventing sparking in the electrical connector. Abe (US5435748) is cited to show the detecting circuit in the electrical connector.

Response to Arguments

10. Applicant's argument of "Matsushita does not teach or suggest preventing sparking during detachment of the card" is not deemed persuasive; because the term "thereby" does not define and distinguish any structure in the claim, therefore, the limitation "thereby preventing sparking during detachment of the connector from the mating connector" is given very little weight patentable and is also deemed to be not positively recited in the claim.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchi Nguyen whose telephone number is (571) 272-2012.

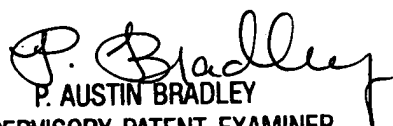
The examiner can normally be reached on 8:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PCN

December 1, 2004


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SUPERVISORY PATENT EXAMINER
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